Amendments to the Claims

1. (original) An automated transaction machine comprising:

a plurality of transaction function devices, wherein each transaction function device includes an associated device computer processor, wherein at least one device computer processor associated with a first transaction function device is operative responsive to being placed in operative connection with at least one other device computer processor associated with a second transaction function device, to cause the first transaction function device to become automatically interoperative with the second transaction function device, wherein the first transaction function device interacts with the second transaction function device in carrying out a financial transaction with the automated transaction machine.

2. (original) An automated transaction machine according to claim 1, and further comprising a network, wherein the network is in operative connection with at least one data store, wherein the data store includes a transaction function device driver, wherein the second transaction function device is operative responsive to the driver, wherein the first transaction function device interacts with the second transaction function device responsive to operation of the driver.

3. (original) An automated transaction machine according to claim 2, wherein the driver is a hardware independent software component that is operative in the device computer processor associated with the first transaction function device.

4.(original) An automated transaction machine according to claim 2, wherein the device computer processor associated with the second transaction function device is operative to cause the driver to be stored in the data store.

5. (original) An automated transaction machine according to claim 4, wherein the device computer processor associated with the first transaction function device is operative to acquire the driver from the data store.

6. (original) An automated transaction machine according to claim 2, wherein the device computer processor associated with the first transaction function device includes a virtual machine, wherein the driver is operative in the virtual machine.

7. (original) An automated transaction machine according to claim 2, wherein the driver includes a method that is operative to cause the second transaction function device to perform a portion of the transaction, wherein the device computer processor associated with the first transaction function device is operative to invoke the method.

8. (currently amended) An automated transaction machine according to claim 1, wherein the device computer processor associated with the second transaction function device is operative to cause the first transaction function device to perform a portion of the transaction responsive to a remote procedure call by the driver.

9. (original) An automated transaction machine according to claim 1, wherein the second transaction function device includes a sheet dispenser, and wherein the transaction includes the dispense of a sheet from the sheet dispenser.

10. (original) An automated financial transaction machine comprising a plurality of transaction function devices, wherein at least one of the transaction function devices includes a sheet dispenser, and wherein each one of the transaction function devices includes an associated device computer, and wherein at least one of the device computers is programmed so that operative connection of a first transaction function device to the machine automatically causes the first transaction function device to coordinate operation with at least one other transaction function device in carrying out a financial transaction which includes the dispense of at least one sheet from the sheet dispenser.

11. (original) An automated transaction machine according to claim 10, wherein each of the plurality of transaction function devices includes an associated transaction function device driver, wherein the first transaction function device is operative to coordinate operation with at least one other transaction function device responsive to at least one of the device drivers.

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12. (original) An automated transaction machine comprising

a network;

a computer processor in operative connection with the network;

a user interface software component operative in the computer processor;

a lookup service in operative connection with the network; and

at least one transaction service in operative connection with the network, wherein the transaction service includes a service proxy software component, wherein the transaction service is operative to send a first copy of the service proxy to the lookup service, and wherein the user interface software component is operative to cause the computer processor to acquire a second copy of the service proxy from the lookup service, wherein the second copy of the service proxy is operative responsive to the user interface software component to cause the transaction service to operate to cause the machine to perform a transaction function.

13. (original) An automated transaction machine according to claim 12, wherein the transaction service includes a transaction device.

14. (original) An automated transaction machine according to claim 13, wherein the transaction device includes a sheet dispenser, wherein the transaction function includes dispensing at least one sheet.

15. (original) An automated transaction machine according to claim 13 wherein the transaction device includes a printer, and wherein the transaction function includes printing at least one document.

16. (original) An automated transaction machine according to claim 13 wherein the transaction device includes a reading device, and wherein the transaction function includes reading with the reading device.

17. (original) An automated transaction machine according to claim 13 wherein the transaction device includes an item accepting device, and wherein the transaction function includes accepting an item with the item accepting device.

18. (original) An automated transaction machine according to claim 12, wherein the transaction service is operative to send a discovery request message to the lookup service; wherein the lookup service is operative to send a discovery response message to the transaction service responsive to the discovery request message, and wherein the transaction service sends the first copy of the service proxy to the lookup service responsive to the discovery response message, whereby the transaction service is operative to register with the lookup service.

19. (original) An automated transaction machine according to claim 18, wherein the discovery request message includes the IP address of the transaction service, and wherein the discovery response message includes the IP address of the lookup service.

20. (original) An automated transaction machine according to claim 18, wherein the transaction service is operative to send the discovery request message proximate in time to when the transaction service is first connected to the network.

21. (original) An automated transaction machine according to claim 12, wherein the user interface software component is operative to send the lookup service a lookup search message, and wherein the lookup service is operative to send the second copy of the service proxy to the computer processor responsive to the lookup search message.

22. (original) An automated transaction machine according to claim 12, wherein the user interface software component includes a user interface service, and wherein the lookup service is in operative connection with a data store, wherein the data store includes the first copy of the service proxy and a first copy of a user interface service proxy that corresponds to the user interface service, wherein the transaction service is operative to cause a computer processor to acquire a second copy of the user interface service proxy, wherein the second copy of the user interface service proxy is operative responsive to the transaction service to cause the user interface service to operate to cause the machine to perform a user interface function.

23. (original) An automated transaction machine according to claim 22 wherein the automated transaction machine includes a display, and wherein the user interface function includes providing an output through the display.

24. (original) An automated transaction machine according to claim 22 wherein the automated transaction machine includes an input device, and wherein the user interface function includes enabling receipt of an input through the input device.

25. (original) A method comprising the steps of:

    (a)   connecting a transaction service in an automated transaction machine, wherein the transaction service includes at least one transaction function device, and wherein the automated transaction machine includes a lookup service and an input service including at least one input device;

    (b)   registering the transaction service with the lookup service, including storing a copy of a service proxy in association with the lookup service;

    (c)   acquiring for use in association with the interface service, a copy of the service proxy from the lookup service;

    (d)   providing at least one input to the input device;

(e)   invoking a method of the service proxy through operation of the interface

service responsive to the at least one input;

(f)   operating the transaction function device of the transaction service

responsive to the method invoked.

26. (original) The method according to claim 25 wherein the transaction device includes a sheet

dispenser and wherein in step (f) the sheet dispenser is operative to dispense at least one sheet.

27. (original) The method according to claim 25 wherein the transaction device includes a

printer, and wherein in step (f) the printer is operative to print at least one document.

28. (original) The method according to claim 25 wherein the transaction device includes a card

interface device and wherein in step (f) the card interface device is operative to change the

amount of value stored on a smart card.

29. (original) The method according to claim 25 wherein the transaction device includes a

medication dispenser, and wherein in step (f) the medication dispenser is operative to dispense at

least one medical item.

30. (original) A method comprising the steps of:

(a)   connecting a first transaction service in an automated transaction machine, wherein the first transaction service includes a first processor and a first transaction function device;

(b)   responsive to performance of step (a), automatically providing a second transaction service in the machine a capability of affecting operation of the first transaction service, wherein the second transaction service includes a second processor and a second transaction function device, and wherein the capability is provided responsive to operation of the first and second processors prior to carrying out a financial transaction with the machine;

(c)   carrying out the financial transaction with the machine wherein operation of one of either the first or second transaction function devices affects operation of the other of the first or second transaction function devices.

31. (original) The method according to claim 30, wherein the first transaction function device includes a sheet dispenser and the second transaction function device includes an input device, and wherein step (c) comprises providing at least one input to the input device, and dispensing at least one sheet from the sheet dispenser responsive to the at least one input.

32. (original) A method comprising the steps of:

a) connecting a transaction service component to an automated transaction machine, wherein the automated transaction machine includes a lookup service and a user interface component;

b) sending a first message from the transaction service component to the lookup service;

c) sending a second message from the lookup service to the transaction service component responsive to the first message;

d) registering the transaction service component with the lookup service responsive to the second message, including sending a first copy of a service proxy to the lookup service;

e) acquiring with the user interface component a second copy of the service proxy from the lookup service;

f) invoking a transaction method of the service proxy with the user interface component; and

g) performing a transaction function with the machine through operation of the

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transaction service component responsive to the transaction method.

33. (original) The method according to claim 32, wherein step (g) includes returning an

operational status of the transaction service component to the user interface component.

34. (original) The method according to claim 32, wherein the transaction service component

includes a sheet dispensing device, and wherein step (g) includes dispensing a sheet from the

dispensing device.

35. (original) The method according to claim 34, wherein step (e) includes sending a third

message to the lookup service from the user interface component, and sending the second copy of

the service proxy from the lookup service to the user interface component responsive to the third

message.

36. (currently amended) An automated transaction machine comprising:

a transaction service including:

a processor;

a transaction device in operative connection with the processor; and

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a service proxy software component in operative connection with the processor;

wherein the processor is operative to register with at least one other service in the automated transaction machine, wherein the processor is operative to cause a copy of a service proxy to be delivered to the at least one other service, and wherein the service proxy in the at least one other service is operative to cause at least one command to be sent to the processor, wherein the processor is operative responsive to the command to cause the transaction device to perform a transaction function.

37. (original) An automated transaction machine according to claim 36, wherein the transaction device is a card reader, and wherein the transaction function includes reading an account number from a card.

38. (original) An automated transaction machine according to claim 36, wherein the service proxy is operative in a JVM of the automated transaction machine.

39. (original) An automated transaction machine according to claim 36, wherein the processor is operative to register with the at least one other service responsive to the processor receiving a discovery announcement message from the at least one other service.

40. (original) An automated transaction machine according to claim 36, wherein the automated transaction machine comprises a lookup service and wherein the processor is operative to cause the service proxy to register with the lookup service.

41. (original) An automated transaction machine according to claim 36, wherein the transaction device includes a sheet dispenser, and wherein the transaction function includes dispensing a sheet from the sheet dispenser.

42. (original) An automated transaction machine comprising:

      a processor, wherein the processor is in operative connection with a lookup service and a transaction service through a network and wherein the lookup service includes a service proxy of the transaction service;

      a data store in operative connection with the processor,

      an application software component operative in the processor, wherein the application software component is operative to cause the processor to send the lookup service a lookup search message, wherein the application software component is operative to cause the processor to receive a copy of the service proxy from the lookup service responsive to the lookup search message, and wherein the application software component is operative to cause the copy of the

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service proxy to be stored in the data store, and wherein the application software

component is operative to invoke at least one method of the copy of the service

proxy, the method being operative to cause the transaction service to cause the

machine to perform a transaction function.

43. (original) An automated transaction machine according to claim 42, wherein the transaction

service includes a sheet dispenser device, wherein the transaction function includes dispensing at

least one sheet from the sheet dispenser device, wherein the application software component is

operative to cause the sheet dispenser device to dispense at least one sheet responsive to the

application software component invoking a sheet dispense method of the service proxy.

44. (new) An automated transaction machine comprising:

a first transaction service,

wherein the first transaction service includes a first transaction function device,

wherein the first transaction function device includes an associated first

computer processor,

wherein the first transaction service includes a service proxy software component

in operative connection with the first computer processor,

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a second transaction service,

wherein the second transaction service includes a second transaction function device,

wherein the second transaction function device includes an associated second computer processor,

wherein the first computer processor is operative to register with the second transaction service,

wherein the first computer processor is operative, responsive to being placed in operative connection with the second computer processor, to cause the first transaction function device to become automatically interoperative with the second transaction function device,

wherein the first computer processor is operative to cause a copy of a service proxy to be delivered to the second transaction service,

wherein the service proxy in the second transaction service is operative to cause at least one command to be sent to the first computer processor,

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wherein the first computer processor is operative responsive to the command to cause the first transaction function device to perform a financial transaction function,

wherein the first transaction function device interacts with the second transaction function device in carrying out a financial transaction.